

WHAT IS CLAIMED IS:

1. A sprinkler head comprising a base;
an elongated stem having an inlet supported within said base;
a nozzle and a stream deflector supported within the stem, said
nozzle and stream deflector cooperating to define an arcuate orifice;
a water distribution plate supported on one end of a shaft extending
upwardly from said base, said water distribution plate located in axially
spaced relationship to said nozzle and adapted to be impinged by a
stream emitted from the nozzle,
an externally threaded sleeve fixed to an opposite end of the shaft;
and
an elastomeric throttle control member constructed with a smooth
through-bore, engaged over said externally threaded sleeve but prevented
from rotating such that rotation of said shaft causes said throttle control
member to move axially relative to a flow restriction portion in said inlet, to
thereby adjust flow rate through said stem and said nozzle.
2. The sprinkler head of claim 1 wherein said elastomeric throttle
control member has tabs extending radially therefrom for interaction with
axially extending ribs on an interior surface of said stem to thereby
constrain said elastomeric throttle control member against rotation when
said shaft is rotated and to thereby move said elastomeric throttle control
member axially toward or away from a maximum restriction position; said
elastomeric throttle control member permitting slippage of said throttle
control member relative to said sleeve upon over-rotation of said shaft.

3. The sprinkler head of claim 1 wherein said elastomeric throttle control member and said flow restriction seat are configured to always permit a predetermined minimum flow of water through said nozzle.

4. The sprinkler head of claim 3 wherein said predetermined minimum flow is sufficient to maintain rotation of said water distribution plate.

5. The sprinkler head of claim 1 wherein a distal end of said shaft projects from said water distribution plate to thereby allow a user to rotate said shaft to adjust said flow rate.

6. The sprinkler head of claim 5 wherein said distal end of said shaft is formed with a groove adapted to receive a tool for rotating said shaft.

7. The sprinkler head of claim 1 wherein said water distribution plate is formed with an interior chamber defined by upper and lower bearings through which said shaft extends, and an interior surface of the rotor plate; a stator fixed to the shaft and located within the chamber; and wherein said chamber is at least partially filled with a viscous fluid.

8. The sprinkler head of claim 1 wherein said sprinkler component comprises a pop-up sprinkler assembly including a fixed housing and an extendable tube, said base located on an upper end of said extendable tube; and wherein said stem, nozzle, stream deflector, shaft and water distribution plate are movable axially relative to said base from an inoperative retracted position where said water distribution plate is seated

on said base, to an operative extended position where said water distribution plate is axially spaced from said base.

9. The sprinkler head of claim 8 including a first coil spring radially outward of a stream emitted from the nozzle, wherein said coil spring biases said water distribution plate toward the inoperative position.

10. The sprinkler head assembly of claim 9 and wherein in use, said extendable tube extends out of said fixed housing before said water distribution plate moves to said operative extended position.

11. The sprinkler head of claim 1 wherein said elastomeric throttle control member and said stem are provided with cooperating guide elements for preventing rotation of said throttle member.

12. The sprinkler head of claim 1 wherein said elastomeric throttle member comprises a polyurethane thermoplastic elastomer.

13. A sprinkler head comprising a base;
an elongated stem having an inlet supported within said base;
a nozzle and a stream deflector supported within said base, said nozzle having a first moveable edge and deflector having a second normally fixed edge cooperating to define an adjustable arcuate discharge orifice;

a water distribution plate supported on a shaft extending upwardly from said stem, said water distribution plate having a plurality of water distribution grooves therein located in axially spaced relationship to said nozzle and adapted to be impinged by a stream emitted from the nozzle;

an arc adjustment ring rotatably mounted on said base, said arc adjustment ring operatively connectable with said nozzle for rotating said nozzle and first movable edge relative to said stem and second normally fixed edge for adjustment of said arcuate discharge orifice;

means operable through said arc adjustment ring for adjusting said second normally fixed edge to reorient said sprinkling pattern; and

an elastomeric throttle control member constructed with a smooth through-bore, engaged over said externally threaded sleeve but prevented from rotating such that rotation of said shaft causes said throttle control member to move axially relative to a flow restriction portion in said inlet, to thereby adjust flow rate through said stem and said nozzle.

14. The sprinkler head of claim 13 wherein said elastomeric throttle control member has tabs extending radially therefrom for interaction with axially extending ribs on an interior surface of said stem to thereby constrain said elastomeric throttle control member against rotation when said shaft is rotated and to thereby move said elastomeric throttle control member axially toward or away from a maximum restriction position; said elastomeric throttle control member permitting slippage of said throttle control member relative to said sleeve upon over-rotation of said shaft.

15. The sprinkler head of claim 13 wherein said elastomeric throttle control member and said flow restriction are configured to always permit a predetermined minimum flow of water through said nozzle.

16. The sprinkler head of claim 15 wherein said predetermined minimum flow is sufficient to maintain rotation of said water distribution plate.

17. The sprinkler head of claim 13 wherein a distal end of said shaft projects from said water distribution plate to thereby allow a user to rotate said shaft to adjust said flow rate.

18. The sprinkler head of claim 17 wherein said distal end of said shaft is formed with a groove adapted to receive a tool for rotating said shaft.

19. The sprinkler head of claim 13 wherein said water distribution plate is formed with an interior chamber defined by upper and lower bearings through which said shaft extends, and an interior surface of the rotor plate; a stator fixed to the shaft and located within the chamber; and wherein said chamber is at least partially filled with a viscous fluid.

20. The sprinkler head of claim 13 wherein said sprinkler component comprises a pop-up sprinkler assembly including a fixed housing and an extendable tube, said base located on an upper end of said extendable tube; and wherein said stem, nozzle, stream deflector, shaft and water distribution plate are movable axially relative to said base from an inoperative retracted position where said water distribution plate is seated on said base, to an operative extended position where said water distribution plate is axially spaced from said base.

21. The sprinkler head of claim 20 including a first coil spring radially outward of a stream emitted from the nozzle, wherein said coil spring biases said water distribution plate toward the inoperative position.

22. The sprinkler head assembly of claim 21 and wherein in use, said extendable tube extends out of said fixed housing before said water distribution plate moves to said operative extended position.

23. The sprinkler head of claim 13 wherein said elastomeric throttle control member and said stem are provided with cooperating guide elements for preventing rotation of said throttle member.

24. The sprinkler head of claim 13 wherein said elastomeric throttle member comprises a polyurethane thermoplastic elastomer.

25. A sprinkler head comprising a base;
an elongated stem having an inlet supported within the base;
a nozzle supported within the stem and adapted to emit a stream;
a shaft extending through said base, one end of said shaft having an externally threaded sleeve thereon; and
an elastomeric throttle control member constructed with a smooth through-bore, engaged over said externally threaded sleeve but prevented from rotating such that rotation of said shaft causes said throttle control member to move axially relative to a flow restriction portion in said inlet, to thereby adjust flow rate through said stem and said nozzle.

26. The sprinkler of claim 25 wherein said elastomeric throttle control member has tabs extending radially therefrom for interaction with axially extending ribs on an interior surface of said stem to thereby constrain said elastomeric throttle control member against rotation when said shaft is rotated and to thereby move said elastomeric throttle control member axially toward or away from a maximum restriction position; said

elastomeric throttle control member permitting slippage of said throttle control member relative to said sleeve upon over-rotation of said shaft.

27. The sprinkler of claim 25 wherein said elastomeric throttle member comprises a polyurethane thermoplastic elastomer.